



# Science, Technology, & More!



## Graded Exercise

## ER2: Wind Power

**Check your tray.** It should contain 6 objects: a motor/generator, a battery, an LED light bulb, a thumbtack, a bent paper clip, and a solar panel. *Put a check mark in the Box 1 when you have identified them all.*

1.

**Find the magnet.** All motors/generators use a magnetic field, and most of them have a permanent magnet inside. *In Box 2, tell where you found the magnet and how you knew it was there.*

2.

**Run the motor.** The motor has two electrical contacts on one side. Place two kinds of batteries against these contacts and see what happens. *In Box 3, tell me what you learned about the batteries.*

3.

**Plug in the light.** Connect the two metal legs of the LED light bulb to the two contacts of the motor/generator. Spin the shaft each direction. *In Box 4, tell me what you saw.*

4.

**Make a pinwheel motor.** Look at the examples in the room and make a pinwheel out of paper. Connect it to the shaft of the motor. *In Box 5, tell me what you learned about making an effective pinwheel.*

5.

**Make a pinwheel generator.** Disconnect the battery, and plug the LED light bulb into the contacts. Bring your pinwheel to the fan, and see if the light will shine. *In Box 6, tell me how this is similar to an industrial wind-powered generator.*

6.